

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of	:	Customer Number: 46320
	:	
Kwasi ASARE, et al.	:	Confirmation Number: 2577
	:	
Application No.: 10/726,192	:	Group Art Unit: 2192
	:	
Filed: December 2, 2003	:	Examiner: T. Dao
	:	
For: HOSTING ENVIRONMENT ABSTRACTION AGENTS	:	

**REQUEST FOR REHEARING UNDER 37 C.F.R. §§ 41.50(b)(2), 41.52(a)**

Mail Stop Appeal Brief - Patents  
Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Request for Rehearing is submitted under 37 C.F.R. § 41.50(b) in response to the Decision on Appeal dated November 17, 2010 (the "Decision on Appeal"). This Request for Rehearing is timely filed within the two month time period for reply set forth under 37 C.F.R. § 41.52(a)(1).

## **REMARKS**

### **I. Overview**

In the Decision on Appeal, the Honorable Board vacated all findings by the Examiner and imposed a new ground of rejection under 35 U.S.C. § 101 within the provisions of 37 C.F.R. § 41.50(b). It is the position of the Appellants that the Honorable Board erred in doing so to the extent that the Honorable Board is not empowered under the law to vacate the findings of an Examiner. Rather, the Honorable Board only can affirm, reverse and remand, or institute a new ground of rejection. In the latter instance, the Honorable Board still must present a finding in respect to all appealed issues. Additionally, with respect to the new ground of rejection under 35 U.S.C. § 101, Appellants believe that all claims 1 through 45 of Appellants are statutory notwithstanding the position of the Honorable Board to the contrary.

### **II. The Board of Patent Appeals and Interferences (the "Board") Lacks the Regulatory Authority to Vacate the Findings of the Examiner without Disposing of All Appealed Issues**

The Board is not an Article III court. Instead, the Board is an administrative tribunal subject to the Administrative Procedure Act. Dickinson v. Zurko, 527 U.S. 150, 163–64 (1999) (PTO is an "agency" that must observe the Administrative Procedure Act). As a result, "the procedural rules governing appeals before the Board are separate and distinct from the procedural rules of an Article III Court of Appeals." Ex parte Borden, Appeal No. 2008-004312, <http://des.uspto.gov/Foia/RetrievePdf?system=BPAI&fINm=fd2008004312-01-07-2010-2> at 6 (BPAI 2010) (informative).

In the paragraph at the bottom of page 3 of the Decision on Appeal, the Board asserts as follows:

*We vacate the prior art rejection encompassing all claims on appeal because we conclude that all claims on appeal, claims 1 through 45, are "barred at the threshold by § 101." In re Comiskey, 554 F.3d 967, 973 (Fed. Cir. 2009) (citing Diamond v. Diehr, 450 U.S. 175, 188 (1981)). Therefore, the following new ground of rejection is set forth in this Opinion within the provision of 37 C.F.R. § 41.50(b). (emphasis added)*

The power of the Board is only provided by 37 C.F.R. Part 41 and the guidance by which the Patent Office binds itself. Under 37 C.F.R. § 41.50(a), the Board is only permitted three dispositions of the appealed rejections: (i) "affirm ... the decision of the examiner in whole or in part on the grounds and on the claims specified by the examiner," (ii) reverse the decision of the examiner in whole or in part on the grounds and on the claims specified by the examiner," or (iii) "remand an application to the examiner." Nothing in 37 C.F.R. Part 41 grants the Board authority to *vacate* a rejection of the Examiner.

Although the Board may also introduce a new ground of rejection, this new ground of rejection is additional to the opinion of the Board presented in 37 C.F.R. 41.50(a). See 37 C.F.R. § 41.50(b) ("[the Board] may include in its opinion a statement [constituting] a new ground of rejection of the claim") (emphasis added). Since a new ground of rejection is included within the opinion and is not a substitute for an opinion, the Board cannot issue an opinion that fails to comply with 37 C.F.R. 41.50(a).

Vacatur by the Board violates both 37 C.F.R. § 41.1 and 5 U.S.C. § 555(b) and (e).<sup>1</sup> Under 37 C.F.R. § 41.1(b), "[t]he provisions of Part 41 shall be construed to secure the just, speedy, and inexpensive resolution of every proceeding before the Board." Similarly, 5 U.S.C. § 555(b) states that "[w]ith due regard for the convenience and necessity of the parties or their representatives and within a reasonable time, each agency shall proceed to conclude a matter presented to it." By vacating the rejections, instead of resolving the issues presented to the Board, the Board has introduced both unreasonable delay and unnecessary expense to the proceedings. Sections 555(b) and (e) require agencies to decide matters presented to them, not put them in "never ending loops" of bouncing up and down between multiple levels of review. British Airways Board v. Port Authority of New York and New Jersey, 564 F.2d 1002, 1012 (2d Cir. 1977) (an agency *must* pursue some path that will "resolve those issues in the reasonably foreseeable future"); Deering-Milliken Inc. v. Johnston, 295 F.2d 856, 865 (4th Cir. 1961); McDonnell Douglas Corp. v. National Aeronautics and Space Admin., 895 F.Supp. 316, 319 (D.D.C. 1995) (condemning "second bites" and an agency's "never ending loops"). By vacating, instead of "concluding the matter presented to it," the Board has introduced both unreasonable delay and unnecessary expense to the proceedings. See Helfgott & Karas, P.C. v. Dickinson, 209 F.3d 1328, 1336, 54 USPQ2d 1425, 1431 (Fed. Cir. 2000) (Patent Office is obligated to interpret the statute and rules to avoid "unnecessary expenditure of resources").

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<sup>1</sup> 5 U.S.C. § 555 reads as follows, in pertinent part:

(b) ... With due regard for the convenience and necessity of the parties or their representatives and within a reasonable time, each agency shall proceed to conclude a matter presented to it.

(e) Prompt notice shall be given of the denial in whole or in part of a written application, petition, or other request of an interested person made in connection with any agency proceeding.

The Board vacating the rejections instead of concluding the matter presented to the Board both substantially delays resolution of the issues presented to the Board and substantially increases the costs incurred by Appellants. Therefore, based upon 37 C.F.R. § 41.1 and 5 U.S.C. § 555(b) and (c) and in the absence of explicit permission to vacate a rejection, 37 C.F.R Part 41 cannot be construed to grant the Board authority to vacate a rejection of the Examiner.

### III. The New Rejection Under 35 U.S.C. § 101

#### A. Patent Office's Burden

The Patent Office has the initial burden to set forth the basis for any rejection so as to put Appellants on notice of the reasons why Appellants are not entitled to a patent on the claim scope that Appellants seeks – the so-called "*prima facie* case." In re Oetiker, 977 F.2d 1443, 1445 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472 (Fed. Cir. 1984). Additionally, the "[t]he examiner's action will be complete as to all matters," 37 C.F.R. § 1.104(b). Under 37 C.F.R. § 1.2, "[t]he action of the Patent and Trademark Office will be based exclusively on the written record in the Office." Where the Honorable Board has introduced new grounds, the Board has stepped into the shoes of the Examiner and is subject to the same requirements in establishing a *prima facie* case of unpatentability.

#### B. Standard of Review

Decisions of the Patent Office are reviewed in accordance with the standards of the Administrative Procedure Act. See Dickinson v. Zurko, 527 U.S. 150, 165 (1999) (applying the Administrative Procedure Act, 5 U.S.C. § 706, to appeals of PTO rulings). Thus, the Patent Office's factual findings are reviewed to determine whether they are unsupported by substantial

evidence. See In re Gartside, 203 F.3d 1305, 1312 (Fed. Cir. 2000). Substantial evidence means "more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." Richardson v. Perales, 402 U.S. 389, 401 (1971).

With regard to the burden placed on the Honorable Board in analyzing the rejections, the Federal Circuit held the following in Gechter v. Davidson, 1167 F.3d 1454, 1460 (Fed. Cir. 1997):

*In sum, we hold that the Board is required to set forth in its opinions specific findings of fact and conclusions of law adequate to form a basis for our review. In particular, we expect that the Board's anticipation analysis be conducted on a limitation by limitation basis, with specific fact findings for each contested limitation and satisfactory explanations for such findings. Claim construction must also be explicit, at least as to any construction disputed by parties to the interference (or an applicant or patentee in an ex parte proceeding). (emphasis added)*

C. Statement By the Board Setting Forth the Rejections Under 35 U.S.C. § 101

On pages 5 and 6 of the Decision on Appeal, the Board states that each of Appellants' independent claims 1 and 11 recite non-statutory subject matter. Specifically, with respect to claim 1, the Board argues:

*More specifically, independent claim 1 recites software components in software application programs, logical hierarchical relationships/dependencies between/among each software component, logical "sets" of software components, an abstract model, and logical classifications. The broadly claimed hosting environment is directed to a software operating system including as well a virtual software-based entity within the operating system as noted in specification paragraph [0020]. No structural hardware environment is recited. Indeed, specification paragraph [0026] indicates that the invention, as claimed, can be realized in software.*

Thus, the position of the Board in sum is that claim 1 is directed to software and since claim 1 is directed to software, claim 1 necessarily must be non-statutory. With respect, in light of the recent holding by the Supreme Court in Bilski v. Kappos<sup>2</sup>, the Honorable Board is wrong.

In this regard, the Court of Appeals for the Federal Circuit in the past had clarified the bounds of patent-eligible subject matter for process claims.<sup>3</sup> In Bilski, the Federal Circuit found the machine-or-transformation test the applicable test for determining patent eligibility of a process under § 101.<sup>4</sup> Specifically, the Federal Circuit enunciated the machine-or-transformation test as follows: “A claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.”<sup>5</sup> However, the Supreme Court more recently found that the machine-or-transformation test is not the exclusive test of determining patent eligibility under 35 U.S.C. § 101.<sup>6</sup>

Rather, in the plurality opinion written by Justice Kennedy, Justice Kennedy noted that strict adherence to only "the machine-or-transformation test would create uncertainty as to the patentability of software, advanced diagnostic medicine techniques, and inventions based on linear programming, data compression, and the manipulation of digital signals" and that the Court would not comment on the patentability of any particular invention, "let alone holding that any of the above-mentioned technologies from the Information Age should or should not receive

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<sup>2</sup> See Bilski v. Kappos, No. 08-964, 561 U.S. \_\_\_\_ (2010), slip op. at 8.

<sup>3</sup> See In re Bilski, 545 F.3d 943 (Fed. Cir. 2008) (en banc)

<sup>4</sup> Id. at 956.

<sup>5</sup> Id. at 954 (citing Benson, 409 U.S. at 70 (1972)).

<sup>6</sup> See Bilski v. Kappos slip op. at 8.

patent protection."<sup>7</sup> Rather, the Supreme Court has found the machine or transformation test to be at best a "useful clue" as to the statutory nature of a process claim.<sup>8</sup>

**Importantly, the Supreme Court concluded that the operable consideration for determining the patent eligibility of claimed subject matter simply is to determine whether or not the claim at issue has attempted to patent an abstract idea.**<sup>9</sup> While the Supreme Court did not presume to provide a rigid formula or definition for abstractness, the Federal Circuit since Bilski has determined not to define "abstract" beyond the recognition that "this disqualifying characteristic should exhibit itself so manifestly as to override the broad statutory categories of eligible subject matter and the statutory context that direct primary attention on the patentability criteria of the rest of the Patent Act."<sup>10</sup> Thus, a proper analysis under 35 U.S.C. § 101 for determining the patent eligibility of a claim requires an analysis directing primary attention to the detection of an attempt to claim an abstract idea.

In the instant case, Examiner has made no attempt to demonstrate factually that the claim at issue reflects an attempt to patent an abstract idea. Rather, the Honorable Board only argues that the claim attempts to claim software without hardware elements. Yet, Appellants' invention presents functional and palpable applications in the field of computer technology. In this regard, as expressed in paragraph [0019] of Appellants' original specification, a generated hierarchical view that has been stored in a repository (which is in of itself a "hardware component") and

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<sup>7</sup> Id., slip op. at 9-10.

<sup>8</sup> Id.

<sup>9</sup> Id.

<sup>10</sup> Research Corporation Technologies, Inc. v. Microsoft Corporation, 2010-1037 at 14 (Fed. Cir. 2010)



recalled at a later time during an installation process of a corresponding application can be helpful in viewing the impact of the configuration of the application as described by the hierarchy in the installation of the application. Specifically, paragraph [0019] provides:

*The hierarchical view can be persisted in a repository and recalled subsequently during an installation process so that the requirements and impact of the installation of an application component can be evaluated in respect to the configuration of the application as described by the hierarchy. In particular, using the hierarchical view, underlying resources required by and utilized by the application can be determined. Moreover, the dependencies between different components in the application can be identified. In this way, the impact of adding a new component to the application can be assessed in terms of whether required components already exist in the application and whether required resources in the target platform further exist for the benefit of the new component.*

The Federal Circuit has acknowledged that inventions with specific applications or improvements to technologies in the marketplace are not likely to be so abstract that they override the statutory language and framework of the Patent Act.<sup>11</sup>

Of note, claim 1 captures aspects of the invention as described in paragraph [0019]. In particular, claim 1 recites a method for hosting environment abstraction. For the convenience of the Honorable Board, claim 1 recites as previously amended:

1. *A hosting environment abstraction method comprising the steps of:  
enumerating each of a set of components in an application;  
identifying dependencies between each component in said set;  
organizing a generic representation of said set of components into a hierarchical structure based upon said identified dependencies;  
producing a model encapsulating said hierarchical structure; and,  
storing said model in a repository for subsequent retrieval wherein said identifying step comprises the step of inspecting each component in said set for data and method member references to other ones of said components in said set, said references indicating a dependency, and the components are application components, and the application comprises the set of components.*

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<sup>11</sup> Id. at 15.

Clearly, the limitations of claim 1, including the storage of the model in a repository for subsequent retrieval are consistent with the specific application to technologies in the marketplace described by paragraph [0019] of Appellants' original specification.

As for the computer program product claim 11, the Board argues at pages 5 and 6 of the Decision on Appeal:

*Independent claim 11 merely recites numerous features related to future actions, such as machine readable, to be performed, for, and when executed, thus indicating no present tense execution within or by any hardware processor or machine. Therefore, this claim appears to be directed to the computer program routine set of instructions set forth in the preamble performing the functional steps in the body of this claim. The claimed storage is generic and only nominally recited and not necessarily structural in nature. No structural storage element is actually recited. Claim 11 therefore includes signal embodiments that are transitory in nature as reflected in specification paragraphs [0020, communications bandwidth and the like] and [0026, distribution of software across several interconnected computer systems]. Thus, this claim covers both nonstatutory subject matter and statutory subject matter since it is broad enough to encompass both transitory and non-transitory storage medium embodiments. Note also the analysis provided by Subject Matter of Eligibility of Computer Readable Media, 1351 Off. Gaz. Pat. Office 212 (Feb. 23, 2010).*

Thus, the position of the Board in sum is that claim 11 is so broad as to encompass a non-transitory signal embodiment. Again, Appellants believe that the Honorable Board has overzealously characterized the nature of Appellants' claimed invention.

In this regard, under § 101, there are four categories of subject matter that are eligible for patent protection: (1) processes; (2) machines; (3) manufactures; and (4) compositions of matter.<sup>12</sup> But even if a claim fits within one or more of the statutory categories, it may not be patent eligible.<sup>13</sup> “Phenomena of nature, though just discovered, mental processes, and abstract

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<sup>12</sup> 35 U.S.C. § 101.

<sup>13</sup> *In re Ferguson*, 558 F.3d 1359, 1363 (Fed. Cir. 2009).

intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.”<sup>14</sup> “A machine is a concrete thing, consisting of parts, or of certain devices and combination of devices. This includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result.”<sup>15</sup> “A ‘manufacture’ (in its verb form) is defined as the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery.”<sup>16</sup> “An ‘article’ is a particular substance or commodity. . . .”<sup>17</sup>

With respect to Appellants' computer readable medium claims, it is important to note that a computer-readable medium when interpreted in light of Appellants' specification is a machine—one of the statutory categories of subject matter under § 101. Appellants' specification indicates that computer-executable instructions (in the form of logic or computer code) are stored on one or more computer readable media as part of a computer. Further, independent claim 11 recites a "machine readable storage having stored thereon a computer program." "[C]laim construction ... is an important first step in a § 101 analysis." In re Bilski, 545 F.3d 943 (Fed. Cir. 2008) (en banc). However, the Board's analysis never presents a claim construction not only for the claim limitations reproduced above but for most of the claimed limitations.

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<sup>14</sup> Id. (quoting Gottschalk v. Benson, 409 U.S. 63, 67 (1972) (*internal quotation marks omitted*))

<sup>15</sup> Id. at 1364 (quoting In re Nuijten, 500 F.3d 1346, 1355 (Fed. Cir. 2007), reh'g denied en banc, 515 F.3d 1361 (Fed. Cir. 2008), and cert. denied, 129 S. Ct. 70 (2008))

<sup>16</sup> In re Nuijten, 500 F.3d at 1356 (*internal quotation marks omitted*).

<sup>17</sup> Id. (*internal quotation marks omitted*).

Notwithstanding, Appellants refer the Honorable Board to the following dictionary<sup>18</sup> definition:

***storage** [COMPUT SCI] Any device that can accept, retain and read back one or more times, the means of storing data may be chemical, electrical magnetic, magnetic, mechanical, or sonic.*<sup>19</sup>

Consistent with the above discussion regarding a data store, the claimed "storage" is a device upon which data is stored (i.e., a data store or a data storage device), and it has been recognized that a device that stores data is directed to a statutory article of manufacture. Ex parte Hooks, Appeal No. 2009-002130 ("we agree with Appellant that the claimed 'computer readable medium storing instructions' is directed to a statutory article of manufacture, because something that stores instructions cannot be intangible) (emphasis in original). Further, the United States Patent and Trademark Office has consistently found that based on this functionality, a computer-readable medium fully comports with the definition of a "machine," namely "a concrete thing, consisting of parts, or of certain devices and combination of devices . . . [that] includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result."<sup>20</sup> Finally, the United States Patent and Trademark Office

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<sup>18</sup> The Federal Circuit has frequently relied upon McGraw-Hill Dictionary of Scientific and Technical Terms in construing claim language. See, e.g., Becton, Dickinson and Company v. Tyco Healthcare Group, LP, Case Nos. 2009-1053, 2009-1111 (Fed. Cir. July 29, 2010)(construing "articulated structure"); L.B. Plastics, Inc. v. Amerimax Home Prods., Inc., 499 F.3d 1303, 1308 (Fed. Cir. 2007)(construing "weld"); Massachusetts Institute of Technology and Electronics for Imaging, Inc. v. Abacus Software, 462 F.3d 1344, 1351 (Fed. Cir. 2006)(construing "scanner"); Intellectual Property Development, Inc. v. UA-Columbia Cablevision of Westchester, Inc., 336 F.3d 1308, 1314, (Fed. Cir. 2003)(construing "high frequency"); CSS Fitness v. Brunswick Corp., 288 F.3d 1359, 1367 (Fed. Cir. 2002)(construing "reciprocating member"); Mas-Hamilton Group v. LaGard, Inc., 156 F.3d 1206 (Fed. Cir. 1998)(construing "stepper motor").

<sup>19</sup> McGraw-Hill Dictionary of Scientific and Technical Terms, 6th Edition, McGraw-Hill Book Company, 2003, pg. 2038.

<sup>20</sup> See e.g. Ex Parte Holmstead, Appeal 2009-1485 (BPAI 2009) citing Ferguson, 558 F.3d at 1364.

has found that a computer-readable medium could be a “manufacture” under § 101 and therefore constitutes statutory subject matter for this additional reason.<sup>21</sup>

*D. Conclusion*

For the reasons set forth herein, Appellants respectfully solicit the Honorable Board to reverse the imposed rejection of the claims under 35 U.S.C. § 101.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 09-0461, and please credit any excess fees to such deposit account.

Date: January 17, 2011

Respectfully submitted,

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CUSTOMER NUMBER 46320

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<sup>21</sup> Id.